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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte NAOKI HASHIMOTO and YOSHIKAZU KOBAYASHI

Appeal 2010-004185
Application 10/671,905
Technology Center 2400

Before THOMAS S. HAHN, ELENI MANTIS MERCADER, and
CARL W. WHITEHEAD, JR., *Administrative Patent Judges*.

MANTIS MERCADER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the final rejection of claims 1-3, 5-14, and 16-23. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

INVENTION

Appellants' claimed invention is directed to a base station allocating packet identification information to a simultaneous packet, and transmitting the simultaneous packet and a redundant packet equal to the simultaneous packet in packet identification information and content. The redundant packet may be transmitted plural times. The terminal has a module that interprets the packet identification information of a received simultaneous packet. If the terminal receives a simultaneous packet equal in packet identification information to the packet that the terminal received just before the simultaneous packet, the terminal discards the currently received simultaneous packet. The terminal, therefore, accepts only a simultaneous packet allocated updated packet identification information. Spec. 9.

Claim 1, reproduced below, is representative of the subject matter on appeal.

1. A packet transmission system comprising:
 sorting means for sorting a packet according to whether the packet should be transmitted in a unicast form or in a simultaneous packet form by multicast or broadcast;
 packet identification information addition means for adding packet identification information to the packet if the packet is sorted as a packet to be transmitted in the simultaneous packet form by the sorting means; and
 transmission means for transmitting said packet that is allocated said packet identification information a plurality of times even if the packet

transmission system does not receive a retransmission request from a reception side,

wherein said transmission means transmits said packet that is allocated said packet identification information and a redundant packet which is a duplicate of said packet that is allocated said packet identification information, and

wherein said packet and said redundant packet transmitted with the same packet identification information contains an identical sequence number.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Chen	US 5,793,976	Aug. 11, 1998
Birdwell	US 6,032,197	Feb. 29, 2000
Meizlik	US 6,112,323	Aug. 29, 2000
Tajika	US 6,118,771	Sep. 12, 2000
Barkai	US 6,188,691 B1	Feb. 13, 2001
Daudelin	US 6,574,770 B1	Jun. 3, 2003
Sharony	US 6,577,609 B2	Jun. 10, 2003
Qaddoura	US 6,646,987 B1	Nov. 11, 2003
Wilford	US 6,687,247 B1	Feb. 3, 2004
Graham	US 7,089,304 B2	Aug. 8, 2006

The following rejections are before us for review:

1. The Examiner rejected claims 1-3 and 5-11 under 35 U.S.C. § 103(a) as being unpatentable over Graham in view of Wilford and Tajika, or as being unpatentable over the combination of Graham, Wilford, and Tajika and further in view of one or more of Birdwell, Meizlik, Barkai, and Sharony.

2. The Examiner rejected claims 12, 14, 18, and 21 under 35 U.S.C. § 102(e) as being anticipated by Daudelin.
3. The Examiner rejected claims 13, 16, 17, 19, 20, 22, and 23 under 35 U.S.C. § 103(a) as being unpatentable over Daudelin in view of Wilford and further in view of one or more of Birdwell, Chen, Barkai, Qaddoura, and Sharony.

ISSUE

The pivotal issue is whether Appellants have shown that the Examiner erred in finding that the combination of Graham, Wilford, and Tajika teaches the limitation of “sorting means for sorting a packet according to whether the packet should be transmitted in a unicast form or in a simultaneous packet form by multicast or broadcast” as recited in claim 1.

PRINCIPLES OF LAW

The Supreme Court stated that “[r]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

“[O]ne cannot show non-obviousness by attacking references individually where . . . the rejections are based on combinations of references.” *In re Keller*, 642 F.2d 413, 426 (CCPA 1981).

“The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference Rather, the test is what the combined teachings of the

references would have suggested to those of ordinary skill in the art.” *Id.* at 425.

“[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (citation omitted).

ANALYSIS

I. Analysis with respect to the rejections of claims 1-3 and 5-11 under 35 U.S.C. § 103 (a) as being unpatentable over Graham in view of Wilford and Tajika.

Appellants argue that the Examiner’s cited motivation to combine the references of improving transmission speed is not supported by the combination (App. Br. 10-11). In particular Appellants explain (*id.*) that Wilford teaches a low latency/high speed routing (col. 2, ll. 43-62) by sorting multicast and unicast packets into separate FIFOs (col. 10, ll. 21-31) and converting multicast packets that are sorted out to unicast packets (col. 10, ll. 32-35). Appellants conclude that if the packets to be transmitted include only unicast packets as taught by Graham (col. 2, ll. 28-30) and no multicast packets, such an advantage of “low latency routing based on packet priority” would not be achieved.

We are not persuaded by Appellants’ argument. The Examiner relied (Ans. 4) on Graham for teaching adding packet identification information to a packet to be transmitted, transmitting the packet a plurality of times thereby creating redundant packets which have packet identification information of an identical sequence number (col. 2, ll. 35-63). The

Examiner also relied (Ans. 5) on Tajika for teaching allocating packet identification information on multicast packets (col. 32, ll. 57-67). Finally the Examiner relied (Ans. 5) on Wilford solely for teaching sorting packets according to whether packets should be transmitted in unicast or by multicast or broadcast (col. 10, ll. 21-31).

The Examiner articulated as motivation to combine that modifying Graham as indicated by Wilford and Tajika would improve speed transmission (col. 2, ll. 43-50) because it would allow packet identification for multicast packages and therefore would provide improved reliability as desired by Graham (col. 2, ll. 42-46). We find that the Examiner's articulated reasoning to combine the references (Ans. 5) provides a rational underpinning to support the legal conclusion of obviousness because modifying Graham with the FIFO of Wilford would allow sorting of unicast and multicast packets. It is reasonable that this sorting would in turn allow for faster addition of the identification information thereby increasing the speed of the system and also reliability of correct identification. *See KSR*, 550 U.S. at 418.

We also agree with the Examiner (Ans. 19) that Graham indicates that the invention is not limited to a particular network topology, and thus, the application to identification information to multicast and unicast packets is not precluded. Furthermore, we note that Appellants' explanation (App. Br. 10-11) that refers to Wilford teaching converting multicast packets that are sorted out to unicast packets (col. 10, ll. 32-35) is misconstruing the Examiner's rationale. The Examiner only relied on Wilford's teaching of using FIFO for sorting the packets to either unicast or multicast which would increase the speed for further processing based on that separation (i.e.,

adding identification information to the packets). The Examiner did not rely on Wilford's teaching of converting multicast packets that are sorted out to unicast packets (col. 10, ll. 32-35). The test of obviousness is not whether the secondary reference may be bodily incorporated into the structure of the primary reference but rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art. *See Keller*, 642 F.2d at 425.

For the aforesaid reasons we will affirm the Examiner's rejection of claim 1 and for similar reasons the rejection of claims 2, 3, and 5-11 for which Appellants presented no additional arguments of patentability.

II. Analysis with respect to the rejection of claims 12, 14, 18, and 21 under 35 U.S.C. § 102(e) as being anticipated by Daudelin.

Appellants argue (App. Br. 14) that Daudelin fails to teach "reception means for receiving duplicate packets that are allocated packet identification information once or a plurality of times without a retransmission request" as recited in claim 12 because the Examiner erroneously construed the term "without a retransmission request" as "without a retransmission request from reception side."

We are not persuaded by Appellants' argument. We adopt the following Examiner's findings and analysis as our own:

Appellant is loosely and incorrectly construing the expiration of the retry timer to equate with a "retransmission request". It is not clear as to how a retry timer starting or not starting indicates a "request" as appellant is arguing. One skilled in the art would not interpret an expiring retry timer of a transmission entity to be a "retransmission request". It is nonsensical that a transmitting entity would be requesting itself to retransmit a packet. Based on the examples in appellant's specification (page 3 lines 1-11), it is not clear as to how

appellant is construing the expiration of a timer to be a “retransmission request”, particularly when the specification gives no description or example of a situation where the retransmission request is generated and received by the transmitting entity itself. In Daudelin, the expiration of the retry timer and subsequent retransmission of a packet is merely a function of the transmitting side that allows duplicate packets to be transmitted without a retransmission request. In other words, the retry time expiration is not a request message, but rather is what allows Daudelin to not have to use retransmission requests. This subsequently means the receiving side will receive duplicate packets without a retransmission request. As such, Daudelin is within the scope of the claimed subject matter of claim 12.

(Ans. 23-24 (emphasis omitted)).

We add that the Specification is the single best guide to the meaning of a disputed term, and Appellants have provided no support for the argued embodiment in their Specification of the retransmission request being generated and received by the transmitting entity itself. *See Phillips*, 415 F.3d at 1315. We also note that in addition to the above findings, we agree with the Examiner’s finding (Ans. 10) that Daudelin teaches a receiving endpoint which receives duplicate packets (col. 3, ll. 1-4).

Accordingly, we will affirm the Examiner’s rejection of claim 12 and for similar reasons the rejection of claims 14, 18, and 21 for which Appellants presented no additional arguments of patentability.

III. Analysis with respect to the rejections of claims 13, 16, 17, 19, 20, 22, and 23 under 35 U.S.C. § 103 (a).

Appellants do not present any additional arguments for claims 13, 16, 17, 19, 20, 22, and 23 under 35 U.S.C. § 103(a) as being unpatentable over Daudelin, Wilford, Birdwell, Chen, Barkai, Qaddoura, and Sharony.

Thus, we will also affirm the Examiner’s rejections of these claims.

CONCLUSION

Appellants have not shown that the Examiner erred in finding that the combination of Graham ,Wilford, and Tajika teaches the limitation of “sorting means for sorting a packet according to whether the packet should be transmitted in a unicast form or in a simultaneous packet form by multicast or broadcast” as recited in claim 1.

ORDER

The decision of the Examiner to reject claims 1-3, 5-14, and 16-23 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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